

TITLE OF THE INVENTION
STRUCTURE OF FLOOR SLAB BRIDGE

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BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a structure of a floor slab bridge in a bridge built up in a river or on land, and more particularly to a structure of a floor slab bridge in which a columnar H-shaped steel is used as a main girder material.

2. Related Art

A floor slab bridge is disclosed by Japanese Patent Application Laid-Open Publication No. H09-221717 as typically illustrated in its FIGS. 1 and 2, in which steel sheet piles 11 are used as a bottom plate, T-shaped steels or H-shaped steels (main girder member 13) are welded to the steel sheet piles 11 such that the T-shaped steels or H-shaped steels are spacedly arranged thereon. Adjacent steel sheet piles 11 are joined by pawls 12 disposed at left and right side end faces of each steel sheet pile 11. Concrete is placed in a space between an upper flange of each T-shaped steel or H-shaped steel and the steel sheet pile 11 through a concrete inlet port which is formed between the upper flanges of each T-shaped steel or H-shaped steel so that a lower concrete layer is formed, and concrete is placed on the upper flange so that an upper concrete layer is formed, wherein the upper concrete layer is to be joined with the lower concrete layer through the concrete inlet port.

Similarly, FIG. 5 of the above publication shows a floor slab bridge in which a plurality of T-shaped steels or H-shaped steels are arranged in side-by-side relation on a bottom plate 3 composed of a single steel plate and concrete is placed thereon.

In those floor slab bridges, a side plate 16 is applied to the outer side surface of the side concrete layer placed on the outer side surface of the leftmost or rightmost T-shaped steel or H-shaped steel, and in the floor slab bridge shown in FIGS. 1 and 2, a PC steel material 18 is pierced through a web plate formed of T-shaped steel or H-shaped steel, which are arranged in a side-by-side relation, a lower concrete layer and a block which is called a cross girder 19, from the outer side surface of the side plate 16. Both ends of the PC steel material 18 are fastened at the outer side surfaces of the side plates 16, and play at the joint part of the pawl 12 is set to a maximum, thereby applying a pre-stress to the concrete layer. Necessarily, the PC steel material 18 used as this pre-stress means is left in its exposed